PIN11

A RETROSPECTIVE EVALUATION OF THE MANAGEMENT AND OUTCOME IN HOSPITALIZED PATIENTS WITH COMMUNITY ACQUIRED PNEUMONIA IN AN INNER-CITY HOSPITAL

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Community-acquired pneumonia (CAP) is a common and serious illness. Analyses of administrative data show that large variations exist in admission rates, length of hospital stay, and use of institutional resources. **OBJECTIVES:** This study evaluated the medical management of patients hospitalized with Community Acquired Pneumonia (CAP) in an urban inner-city public hospital. The study was undertaken to identify areas for quality improvement. **METHODS:** A retrospective chart review was used to collect data on patients admitted to the hospital with a diagnosis of CAP during the period January 1, 2003 to April 30, 2004. Data were collected based on American Thoracic Society (ATS) criteria. **RESULTS:** Medical records of 155 patients were reviewed; overall mortality rate was 4%; 80% of patients received their first antibiotic dose in less than eight hours; 97% of patients had their oxygenation checked within 24 hours of admission. Only 45% of patients had at least one culture performed prior to initiation of antibiotics. The most commonly prescribed antibiotic was levofloxacin, representing 39% of all antibiotic orders. Using the ATS guidelines, 14 (9%) patients were considered to have received inappropriate antimicrobial treatment. Of these patients, 7 had severe cases of CAP requiring admission to an intensive care unit (ICU). The average length of stay for all patients was 7.64 days (SD + 0.327). Patients who received an antibiotic regimen that covered both typical and atypical organisms, as compared to those who did not, had a shorter length of therapy (7.33 days vs. 9.79 days, $p < 0.05$). **CONCLUSION:** Ongoing analysis of inpatients with CAP will provide information to evaluate improvement of clinical outcomes and to identify areas of focus for future performance improvement activities.

PIN12

ASSESSEMENT OF THE EFFECT OF DROTRECOGIN ALPHA (ACTIVATED) TREATMENT OF SEVERE SEPSIS ON BLEEDING EVENTS WITH COUNT MODELS

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OBJECTIVES: To evaluate the effect of drotegogin alfa (DA) on bleeding events in patients with severe sepsis and multiple organ failures. **METHODS:** A pre-post design was conducted before and after DA's market introduction. An optimal propensity score matching method was undertaken to control for unbalanced characteristics. Several models were tested to explain the number of bleedings events. The more usual ones are the Poisson and the negative binomial (NB) models. Contrary to the NB model, including a dispersion parameter, the Poisson model supposes the mean equals the variance. An alternative consists on modeling separately the probability of experiencing at least one bleeding (with a binomial model) and the number of bleeding events (with a count model). Double-hurdle models suppose that, once a threshold has been exceeded, patients experience at least one bleeding event. In zero inflated models, both models can predict an event absence. Non-nested models were compared with the Vuong statistic. **RESULTS:** The matched sample includes 840 patients. Bleeding events were experienced by 17.6% of patients, 13.6% in the before and 21.7% in the after phase ($p = 0.0021$). The mean number of bleedings was higher in DA treated patients (0.28 against 0.18, $p = 0.0208$). The standard NB model fitted better than the double-hurdle NB model ($p < 0.0001$) and was similar to the zero-inflated NB model ($p = 0.6815$). We kept the NB model, the simpler one. Moreover, the dispersion parameter was significant ($p = 0.0013$), favouring the NB to the Poisson model. In this multivariate model, patients in the after phase were still more at risk of experiencing bleeding events. Other risk factors included the presence of a central catheter infection and a high LODS score. **CONCLUSIONS:** DA use in addition to the conventional treatment leads to more bleeding events. In our study, over-parameterised models did not bring more information than simpler ones.

PIN13

SYSTEMATIC REVIEW ON THE SHARE OF ANTIBIOTIC THERAPY COST IN RELATION OVERALL DIRECT TREAMENT COSTS OF MOST FREQUENT NOSOCOMIAL AND COMMUNITY ACQUIRED INFECTIONS IN ADULTS

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OBJECTIVES: To evaluate the share of antibiotic therapy cost in total treatment costs for nosocomial and community acquired infections. **METHODS:** Systematic literature search (1996–2003) using the major online databases and additional manual search yielded 1211 references (selection Ia). Studies were divided up to 11 different diagnostic groups that were considered to be most relevant (selection Ib). Inclusion and exclusion criteria were applied for the selection Ic. Study quality was assessed with a consolidated quality score comprising 23 questions. A study was assessed as "qualified" for further analyses, if at least 50% of maximum points were achieved in a review conducted by two independent reviewers. This resulted in the selection of 44 studies (selection II) that were subject to a detailed metaanalysis. **RESULTS:** The percentage of antibiotic costs in relation to total direct costs was low: nosocomial pneumonia (N = 3, 1.4–13.7%, SD: 5.5), respiratory tract infections (N = 2, 10–24.8%, SD: 5.3), community acquired pneumonia (N = 14, 0.64–57.84%, SD: 24.65), chronic bronchitis (N = 6, 1.1–66.66%, SD: 17.19), urinary tract infection (N = 3.5–33.82%, SD: 14.85), intraabdominal infection (N = 2, 3.2–19.38%, SD: 5.26), surgical prophylaxis (N = 2, 0.1–83.8%, SD: 33.02), otolaryngological infections (N = 4, 14.18–60.1%), STD (N = 1, 0.15–3.3%, SD: 2.23), Helicobacter pylori infections (N = 3, 2.34–45.49%, SD: 16.36), Clostridium difficile infections (N = 3, 0.07–1.20%, SD: 0.51). **CONCLUSIONS:** This review showed that costs of antibiotic treatment were low compared to overall direct treatment costs for most frequent infections regardless of the differences in design and quality of studies. The experience from this review may also contribute to further development of evidence-based guidelines for conducting pharmacoeconomical studies.

PIN14

IMPACT ON QUALITY OF LIFE OF HEALTH STATES INDUCED BY CHRONIC HEPATITIS B INFECTION: ESTIMATES FROM INFECTED AMERICANS

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